

in flower
30th March 1847. Santa Fe. A shrub
(the highest from 10 to 15 feet) very
common all around Santa Fe.
Lower regions of the mountains,
but more abundantly on the dry
gravelly hills south West of Santa
Fe, and on the plains adjoining
them. They are found also on
the summits of high mountains
but far less abundantly.
The branchlets of this tree are
much quicker than those of
the next following number.

in flower
30th April 1847. Santa Fe, mount-
ain valleys, on the neighborhood
of creeks. A shrub commonly
of 1 to 15 feet high; some of its
lowermost branches (near the ground)
often $\frac{1}{2}$ foot in diameter.
A tree like shrub of this kind
I saw near the creek, whose main
trunk measured 8 feet in cir-
cumference; the branches lower-
most branches very much spread-
ing and growing to a height
of about 25 feet.

June 1847. in flower. Santa
Fe Creek valley in shady pla-
ces at a great distance from the
Creek. Bushes from 1 to
2 1/2 feet high, branches very
tough.

Naiadaceae.

21st June 1847. July 1847.
Vicinity of Santa Fe, at the
margin of ponds, immersed,
leaves floating on the surface.

Alismaceae.

Alisma Plantago. fruct. minute
fol. cordatis. = *A. perfoliatum* L.
17th August 1846. About 85 miles
East of Council Grove, marshy
ground, Creek bed.

Sagittaria variabilis Michx.
= *S. sagittifolia* americana
21st June 1847. Santa Fe,
shallow ponds.
17th July, in fruit.

Sagitt.

2nd Septbr. 1847. Shallow pond
like collections of water in the
prairie 40 miles West of the
Mouth of Arkansas River.

Utriculariaceae.

14th August 1847. September 1847.
Low prairie 9 miles South
of Fort Leavenworth; also about
100th West long. Lake, not far from
the bed of the Arkansas River.
Flowers white.

Saxifragaceae.

22nd June 1847. Santa Fe
in grassy places near
the creek.

Simulacrae.

Asparagus officinalis

18th June 1847. Santa Fe
cultivated.

17th June 1847. Santa Fe creek
valley; overgrown bed of the
Creek.

3rd 10th June 1847. Santa Fe
shady bank of the creek fertile
soil.

3rd - 4th June 1847. Santa Fe
foot of mountains shady
places northern declivities.

Siliaceae.

8th July 1847. Santa Fe, foot
of mountains, creek-valley.

8th June - 1st October 1846 - J. Santa Fe to Rock Creek; also between Raton and Bermejo Creek (below Bent's Fort and Santa Fe), near creeks, and on level prairie, also foot of mountains.

3rd June 1847. in flower. Santa Fe, sunny steep declivities of mountains, between rocks, over green. The rhizomas of this plant which sometimes are to be found of 3 inches diameter, are used by the Mexicans as a substitute for soap. For this purpose they are washed into pieces with a stone, hot water poured on to them, and the clothes rubbed with them. In drying the leaves I found that from their base where they had been cut, some drops of a clear transparent substance, which was sticky & like glue, but had no smell, was exuding. Some of the leaves over 3 feet long.

24th May - 21st August in flower. Santa Fe to Rock Creek, at the foot of mountains, on shady declivities, around shrubs. Also on dry scrub hills about Santa Fe Bent's Fort, but more abundantly in the valleys between these hills. The rhizomas of this plant are likewise used as a substitute for soap. This plant does not seem to flower every year.

17th August 1847. 2 miles East of Moro River. Elevated rocky region.

Pontederiaceae.

2nd September 1847. Pontedericea collections of water in the prairies

40 miles South West of the Ford of Arkansas River. Flowers of a fine blue colour.

Melanthaceae.

Melanthium virginicum

11th August 1846. 8 miles South of Fort Leavenworth. high prairie

28th July 1847. Santa Fe ^(Creek) 12 miles up the above Santa Fe, foot of mountains.

Suncaceae, Cyperaceae & Gramineae.

6th June - 26th July 1847. Santa Fe, wet grassy places of the Creek-bottom.

20th May - 17th August 1847. Santa Fe and Rio Moro, elevated rocky regions not far from the water.

9th June - 12th July 1847. Santa Fe Creek, margin of the water.

16th June - 28th July 1847. Santa Fe Creek, margin of the water.

3rd September 1847. Ford of the Arkansas River, wet bottom-land.

15th May - 7th July 1847. Santa Fe Creek, near the water.

3rd June 1847. Santa Fe Creek, bottom land exposed to inundations.

14th August 1847. 12 miles West of Vegas, elevated rocky region.

Commelyna agraria Kunth

(Leinnis, Madison, Arkansas, Texas)

22nd August 1846. Council-Grove, shady place underneath projecting ledges of rocks, fertile loose soil.

Commelyna ~~and to n. sp.~~

28th July 1847. Santa Fe, Creek valley in the mountains.

14th August 1847. Between San Miguel and Vegas, open woodland. Flower white.

25th June - 28th July 1847. Santa Fe, foot of mountains near irrigating ditches.

14th - 25th August 1846. 30 miles West of Council Grove, low place.

14th - 25th August 1847. San Miguel - McNeill's Creek, sandy hill side.

Cyperus Strigosus L. Torrey

27th August 1846. 30 miles West of Council Grove, low place

25th July - 14th August 1847. Santa Fe to Vegas, woodland.

15th August 1846 & 3rd September 1847. Ford of the Arkansas River, wet bottomland; and 80 miles West of Independence.

18th - 26th September 1847. Bluff-Creek-bottom.

23rd August 1846. Council Grove, dry parts of the gravelly creekbed.

27th May - 12th July 1847. Santa Fe, margin of the Creek.

26th April 1847. Santa Fe Creek, low grassy bank.

27th May - 18th July 1847. Santa Fe, margin of a pond, wet soil.

21st May - 7th June 1847. Santa Fe, immersed in a pond.

3rd September 1847. Ford of the Arkansas River, wet bottom land.

3rd September 1847. Ford of the Arkansas River, low wet places near the river.

26th April - 24th June 1847. Santa Fe, margin of the Creek and of irrigating ditches.

15th May 1847. Santa Fe Creek-valley, moist places.

16th June 1847. Santa Fe, margin of the Creek in the mountains.

21st May - 19th July 1847. Santa Fe, margin of the Creek.

31st May - 16th June 1847. Santa Fe, Creek bank.

16th June - 7th July 1847. Santa Fe, margin of irrigating ditches.

15th May - 24th June 1847. Santa Fe, Creek bank, near the water.

3^d June 1847. Santa Fe, shady bank of the creek, close to the water.

23^d August 1847. 7 miles East of Rock Creek.

21st May - 7th June 1847. Santa Fe, wet meadow near a pond.

3^d June 1847. Santa Fe, creek-valley, not far from the creek.

20th May - 6th June 1847. Santa Fe, margin of irrigating ditches.

17th April 1847. Santa Fe Creek, moist places near the creek.

26th April 1847. Santa Fe, foot of mountains, not far from irrigating ditches.

24th - 27th April 1847. Santa Fe, wet meadow near a pond.

24th May 1847. Rio del Norte, margin of the water on somewhat elevated banks, between rocks.

10th May - 2^d August 1847. Santa Fe, dry loose and level ground, also sandy soil and gently sloping declivities.

27th August 1847. Upper Spring (Gimmaron Riv.), bank of the river.

19th July - 16th August 1847. Santa Fe - Moro Riv., rocky bluffs.

27th August 1847. Upper Spring (Gimmaron Riv.), margin of the water.

27th August 1847. Upper Spring (Gimmaron Riv.), margin of the water.

19th June - 10th August 1847. Santa Fe, elevated place of the creek-bottom; also near the irrigating ditches of fields. (Iris, acorn Darter, etc.)

19th August 1846. Council Grove, bottom land.

3^d 19th July 1847. Santa Fe, margin of irrigating ditches at the foot of mountains.

22nd June - 8th August 1847. Santa Fe, Creek-bottom.

20th May - 18th July 1847. Santa Fe, dry valleys at the foot of hills loose soil.

31st July 1847. Santa Fe, creek-valley.

15th July 1847. Santa Fe, creek-valley, foot of hills.

19th - 31st July 1847. Santa Fe, Creek-bottom.

Elymus canadensis
21st September 1847. Bottom land of Kansas River.

8th 15th July 1847. Santa Fe, Creek-valley near irrigating ditches.

8th June - 15th July 1847. Santa Fe, Creek-valley at the foot of hills, not far from the creek bank.

22nd June - 26th July 1847. Santa Fe, Creek-valley, foot of hills.

16th June - 12th July 1847. Santa Fe.

17th August 1846. No Creek, slopes of the creek bank.

21st May 1847. Santa Fe, in a wet meadow.

25th August 1847. Mc. Pies's Creek, sandy hillside.

15th August - 18th September 1847. 100 miles West of Independence to Bluff Creek, fertile bottom land.

12th August 1847. Near San Miguel, open woodland.

7th July - 16th August 1847. Santa Fe - Moro River, foot of rocky hills.

28th July 1847. Santa Fe, Creek-valley.

10th - 31st July 1847. Santa Fe, foot of hills at the margin of fields.

24th May - 16th June 1847. Rio del Norte, - Santa Fe, side of hills.

22nd June - 7th July 1847. Santa Fe, Creek-valley, shady bank of the creek.

24th June - 28th July 1847. Santa Fe, foot of mountains.

7th - 12th July 1847. Santa Fe, side of mountains.

12th - 26th July 1847. etc.

16th June - 26th July 1847. Santa Fe, protected by shrubs, at the foot of hills near fields.

28th August 1847. Between the Ford of Gimmaron Riv. and Willow Bar, deep sandy somewhat moist soil.

28th August 1847. A few miles West of the ford of Gimmaron Riv., high sandy prairie.

6th June - 31st July 1847. Santa Fe, Creek-valley, foot of mountains.

16th - 22nd June 1847. Santa Fe, Creek-valley.

3^d - 16th June 1847. Santa Fe, margin of the creek in the mountains.

3^d June - 15th July 1847. Santa Fe, etc.

27th May - 12th July 1847. Santa Fe, wet meadow.

27th May - 15th July 1847. Santa Fe, low wet meadow.

22nd April - 16th June 1847. Santa Fe Creek valley, sides of mountains between rocks, also foot of mountains and steep rocky banks.

7th June 1847. Santa Fe, margin of the creek.

18th September 1847. Bluff Creek - bottom.

17th - 20th August 1847. Ocate Creek to Moro River, elevated rocky places.

Coa reptans

23rd August - 26th September 1847. Council Grove, gravelly part of the Creek-bed; also Missouri.

10th - 13th August 1847. A few miles East of Santa Fe to neighbourhood of Ojo de Bernal; woodland.

25th May - 26th July 1847. Rio del Norte, steep bank between rocks; also Santa Fe, waste garden land.

7th June - 25th July 1847. Santa Fe, along the mud-walls of fields.

31st May - 7th June 1847. Santa Fe Creek, grassy somewhat elevated parts of its bottom land.

26th July - 23rd August 1847. Santa Fe, Rock-Creek, dry prairie.

16th June - 7th July 1847. Santa Fe Creek, foot of hills.

15th May 1847. Santa Fe Creek.

30th April - 24th June 1847. Swampy bank of Santa Fe Creek.

9th June - 29th July 1847. Santa Fe Creek valley, wet soil near a spring.

1st June - 28th August 1847. Rio del Norte, low sandy bank; Santa Fe, flat sandy places in the ford of Cimarron Riv.; also between Bent's Fort & Santa Fe.

17th May - 19th July 1847. Dry sandy plains between Santa Fe and the Rio del Norte; also Santa Fe, foot of hills near fields.

3rd - 31st July 1847. Santa Fe Creek valley, foot of hills near fields.

13th - 23rd August 1847. Ojo de Bernal, Moro Riv. and Rock Creek.

2nd August - 1st September 1847. Santa Fe to Little Arkansas Riv., from which region east it is only found occasional small isolated patches along the road as far as Council Grove.

13th August 1847. Near Ojo de Bernal.

29th June - 27th August 1847. Santa Fe, Moro Riv. to Council Grove.

14th August 1846. A few miles West of Hickory point, low wet bottom.

18th September 1847. Bluff Creek bottom.

24th September 1847. 8 miles South of Fort Leavenworth, along the roadside.

24th May - 28th August 1847. Rio del Norte, slopes of somewhat elevated banks, also a few miles West of the ford of Cimarron Riv., prairie.

28th August 1847. A few miles West of the Ford of Cimarron Riv., low prairie.

3rd July 1847. Santa Fe Creek valley upon the mountains.

3rd July 1847. Santa Fe Creek valley not far from the creek.

3rd June - 19th October 1846-47. Santa Fe Creek valley, gently sloping declivities, rather dry soil.

6th June - 15th July 1847. Santa Fe, margin of the creek.

9th June - 10th August 1847. Santa Fe, foot of dry hills, somewhat sandy soil.

8th September 1847. Pawnee Fork Creek bottom, shady places.

26th - 28th July 1847. Santa Fe, Creek valley near fields.

7th July 1847. Santa Fe, margin of the creek.

24th September 1847. Near Fort Leavenworth.

3rd October 1846. Bottom prairie and banks of Poné Creek, fertile soil.

16th August 1847. Moro River, hillside between rocks.

22nd September 1847. 6 miles North of the upper ferry of Kansas Riv.

13th August to 1st October 1846. 41. Ojo de Bernal & Rock Creek, elevated prairie, on spots where the soil is loose and fertile; also between Bermejo and Colorado Riv., in similar localities.

15th June - 1st October 1846-47. Santa Fe - Vegas, and Colorado Riv.; prairie valleys, good soil.

24th June - 15th July 1847. Santa Fe, Creek valley near an irrigating ditch.

15th July 1847. Santa Fe, not far from the creek, at the foot of mountains.

22^d June - 28th July 1847. Santa Fe, margin of the creek.

30th May - 6th August 1847. Santa Fe, dry hill-sides, gravelly soil.

13th August 1847. near Ojo de Bernal.

8th September 1847. Pawnee Fork, creek bottom.

24th May 1847. Rio del Norte, sides of somewhat elevated banks forming the water, between rocks.

1st Septbr. 1847. Prairie at Sand Creek.

14th August 1847. Between San Miguel & Vegas

19th May - 13th July 1847. Rio del Norte and Santa Fe, sunny hillsides, between rocks.

17th May - 6th August 1847. Rio del Norte, sandy elevated places of the river bank, at some distance from the water, also Santa Fe, foot of hills, dry loose sandy soil, under protection of shrubs.

16th June - 10th August 1847. Santa Fe, foot of dry hills.

30th May - 13th August 1847. Santa Fe, dry gravelly valley; also neighbourhood of Ojo de Bernal.

17th August 1847, 2 miles East of Mora River, foot of high rocks.

17th - 31st July 1847. Santa Fe, waste fields; Rio del Norte, low sandy river bank.

29th August 1847. Between Willow-Bar and Middle Spring (Cimmaron Riv.).

15th May - 3rd June 1847. Santa Fe Creek, bottom-land at no great distance from the creek.

19th July 1847. Santa Fe, grassy margin of an irrigating ditch.

12th August - 8th September 1847. Pawnee Fork & Pecos, prairies.

16th July - 3rd Septbr. 1847. Santa Fe, creek-valley near fields; - Willow-Bar, sandy wet bottom-land; - Ford of Arkansas R., low bottom-land.

27th August 1847. Upper Spring (Cimmaron Riv.) margin of the water.

21st Septbr. 1847. Prairie about 10 miles South West of the upper ferry of Kansas Riv.

27th September 1847. Bank of Missouri Riv. above Washington.

12th August 1847. 10 miles East of Pecos, low prairie.

28th July 1847. Santa Fe Creek, valley, not far from the creek.

16th August 1847. Mora Riv., hillside between rocks.

17th August 1846. Creek-bottom near Council Grove.

26th July - 8th September 1847. Santa Fe, creek-bottom; - Ojo de Bernal, margin of a pond; - Ford of the Arkansas Riv., wet bottom land; - Pawnee Fork, creek-bottom.

12th August 1847. 10 miles East of Pecos.

26th August 1847. A few miles W of the ford of Cimmaron Riv.

12th August 1847. Ojo de Bernal low grassy places in the mountains.

3rd - 24th June 1847. Santa Fe Creek, margin of the creek.

13th - 16th August 1847. Ojo de Bernal - Mora Riv., summit of a rocky hill.

15th May - 12th July 1847. Santa Fe, margin of the creek.

Leersia virginica

24th September 1847. 8 miles South of Fort Leavenworth, in ravines along the road side.

17th August 1847. A few miles East of Mora Riv., deep standing water.

Myriophyllum sibiricum = 1006

14th August 1847. About 90 miles West of Independence, under water in a deep large pool.

18th September 1847. Bluff-creek bottom, submerged in the water of a shallow pool.

Leersia trisulca?

L. minor?

2 species. 17th August 1847. A few miles East of Mora R., surface.

of deep standing water.

29th April 1847. Santa Fe, in a pond-like collection of water fed by a small spring.

Equisetaceae.

Equisetum arvense

22nd April - 22nd June 1847. Santa Fe creek-bottom, near the creek and irrigating ditches, also Rio del Norte, low bank, margin of the water.

E. hyemale?

8th - 22nd May 1847. Rio del Norte, low wet sandy bank of the river.

E. laevigatum A. Br.
22nd June 1847. Santa Fe, foot of hills near the creek.

E. robustum A. Br.
4th March - 2nd May Sunny bank of Santa Fe creek.

Filices.

Botrychium lunaria?
only one small specimen seen.

5th June 1847. Santa Fe creek valley, grassy place.

12th April - 11th November 1847. Santa Fe, shady sides of mountains, near the foot as well as on the summit. In good soil under protection of rocks and roots, in crevices. Early in the spring, the leaves show a tendency to roll up, as soon as the plant is taken from the ground. Still green throughout the winter.

23rd February 1847. Eastern mountains, Santa Fe, sunny declivities in crevices of steep masses of rocks.

8th - 25th May 1847. Rio del Norte, deep ravines in the trap-formation, ~~the~~ rachis flexuose, pinnae alternate.

22nd August 1846. Council Grove, underneath projecting ledges of rocks, high dry region. rachis straight, pinnae opposite.

Pteris atropurpurea

20th August 1846. Council Grove, summit of a hill, deep crevices in the rocks.

28th July 1847. Santa Fe Creek 12 miles above Santa Fe, high mountains, shady places in ravines.

Aspidium marginatum?

5th June 1847. Santa Fe Creek, bottom, near the creek.

21st August 1847. Council Grove ravine, between rocks, in a ravine.

15th May - 24th June 1847. Santa Fe creek-bottom, shady places at the foot of rocks, damp moist fertile soil.

30th March - 17th August 1847. Santa Fe Creek, shady bank, between rocks, good soil. Also 2 miles East of Mora River green throughout the winter.

Lycopodiaceae.

Lycopodium

13th February - 17th April 1847. Santa Fe Creek, perpendicular sides of rocks facing the creek, in the higher regions of the mountain range as well as on the shady bank of the lower creek. Begins to be lively green in the month of March.

Lycop.

near Aquestre but apparently different.
6th February - April 1847. Santa Fe, between rocks in the upper region of the mountains.

Characeae.

29th April 1847. Santa Fe, in a shallow pond fed by a spring.

Sets 1-6

7-14

15-20

21-28

29-37

38-53

54-73

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387 - 300

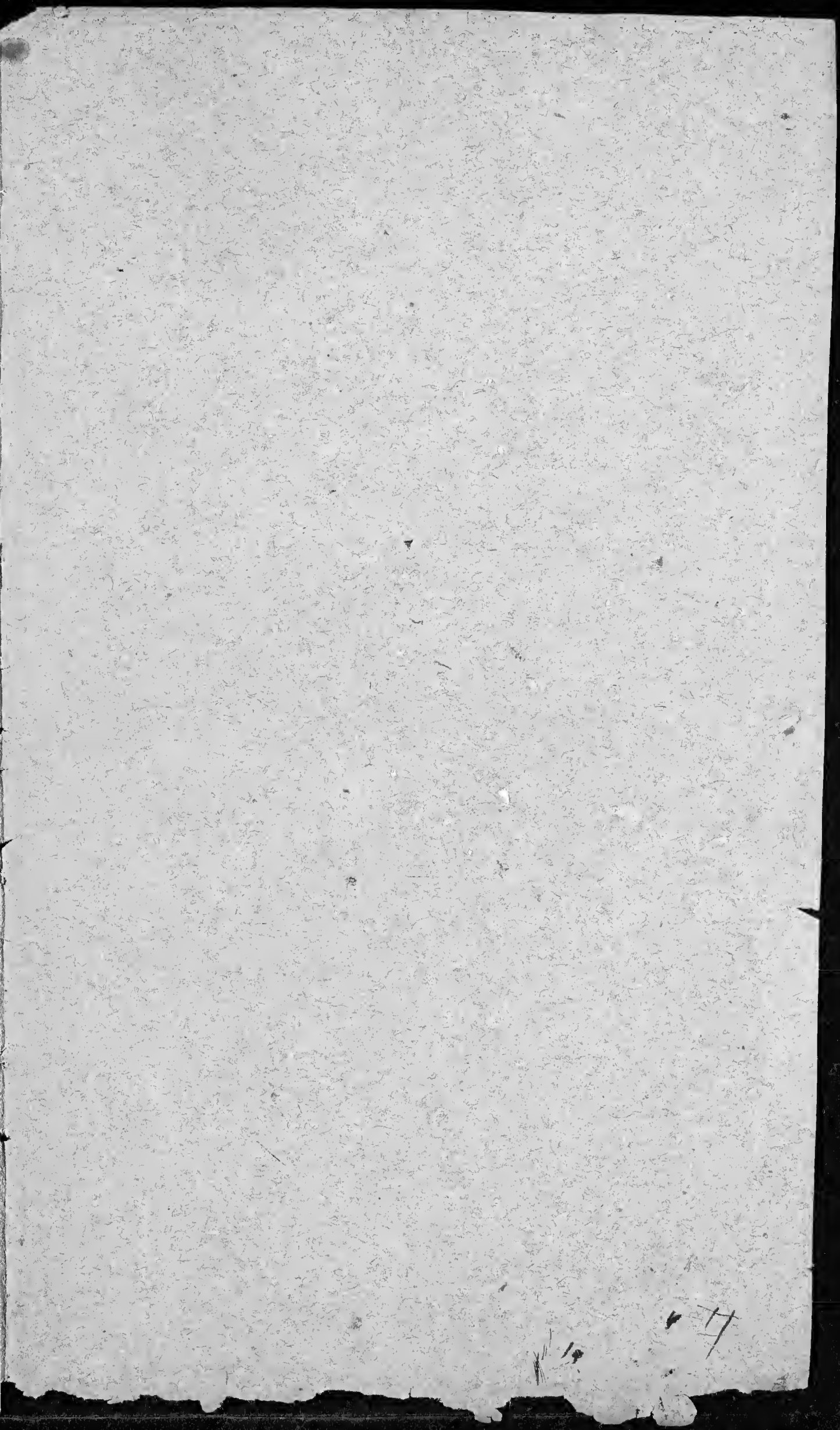
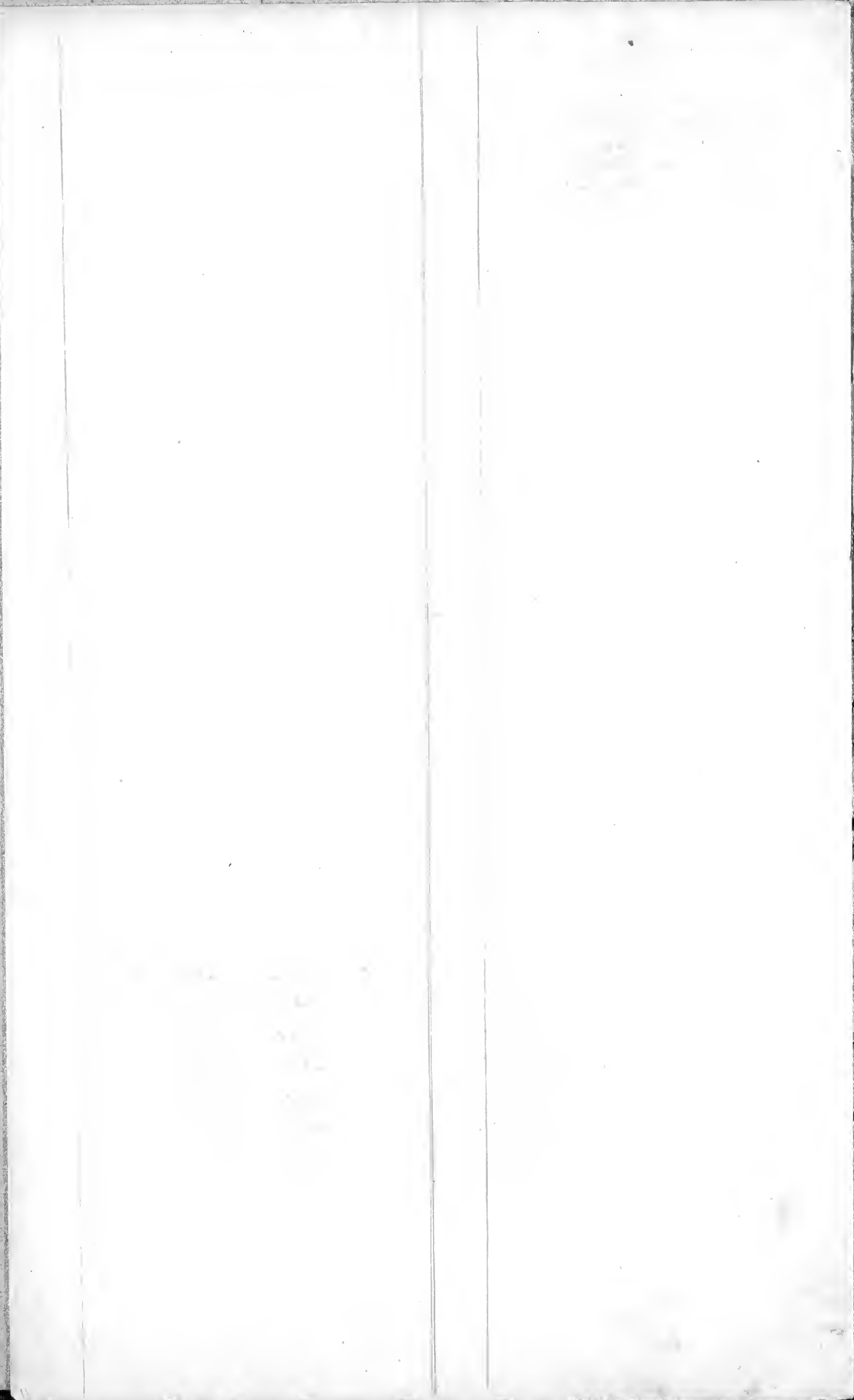
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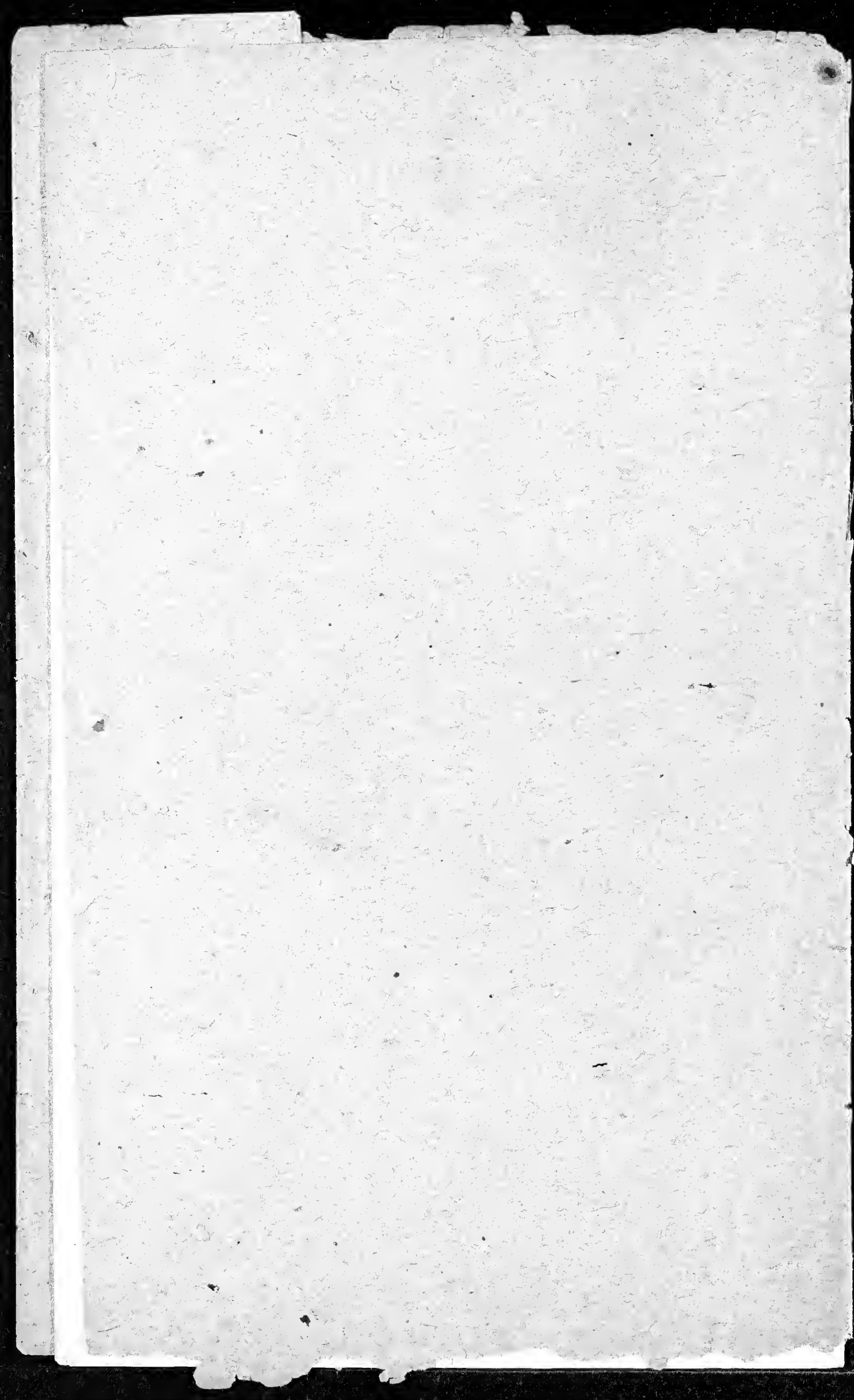
246 - 200

191 - 151

147 - 100

97 - 50







Fendler nos 834-1026

New Mexico

Plant Lists

23.5